



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,627	11/07/2005	Dirk Marsitzky	P08414/LeA 35,985	6971
23416 7590 01/15/2009 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899				
EXAMINER				
YAMNITZKY, MARIE ROSE				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
01/15/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,627

Applicant(s)

MARSITZKY ET AL.

Examiner

Marie R. Yamnitzky

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2004 and 07 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-29 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

The Form PTO-1390 (Transmittal Letter...Under 35 U.S.C. 371) received December 01, 2004, indicates that an English language translation of amendments to the claims under PCT Article 19 was submitted. However, while an English language translation of the international application (including claims) was received December 01, 2004, there is no Article 19 amendment in the file. The examiner notes that the Form PCT/DO/EO/903 (371 Acceptance Notice) mailed January 13, 2006 does not list an Article 19 amendment (or translation thereof) in the list of items that have been received.

Claims 1-29 as set forth in the English language translation of the international application received December 01, 2004 are pending.

Claims 3-6, 8-10 and 14-29 are improper multiple dependent claims. A multiple dependent claim should refer to other claims in the alternative only, and cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

In addition to being an improper multiple dependent claim, pending claim 26 is also a “use” claim that does not set forth any steps involved in the method/process. See MPEP 2173.05(q).

While applicant is not required to correct the claim dependencies of the improper multiple dependent claims in response to this action (or correct the “use” claim), doing so will avoid further delay in examination of claims that read on the invention and species elected in response to this action.

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-23, 27 and 28, drawn to a polymer that is conjugated and contains a least one covalently bonded metal complex, and an electroluminescent arrangement containing such a polymer.

Group II, claims 24 and 25, drawn to a process for preparing polymers wherein the process comprises complexing an iridium (III), platinum (II), osmium (II) or rhodium (III) precursor complex with an uncomplexed ligand polymer.

Group III, claim 29, drawn to a process of producing an electroluminescent arrangement wherein the process comprises applying a polymer from a solution.

Group IV, claim 26, drawn to a "use" of a polymer as described in Group I. (Claim 23 is grouped separately here because it is not a proper method claim under 35 U.S.C. 101 and/or 112, 2nd paragraph since the steps involved in the method/process are not clearly defined. If claim 23 is amended in response to this action, and applicant is of the position that the amended claim should be regrouped with one of Groups I-III, applicant should present arguments in support thereof.)

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The feature in common to all Groups, a conjugated polymer having at least one covalently bonded metal complex, does not represent a contribution over the prior art, and therefore does not constitute a special technical feature, because such a polymer was known in the art at the time of the present invention as evidenced, for example, by US 2002/0193532 A1 to Ikehira et al.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Polymers having different overall structures and/or having different combinations of conjugated groups, ligands and metal wherein the overall structure of the polymer (as shown, e.g. in claim 8) is one selected from:

- (i) a polymer containing repeating units of the general formulae A and B-Ia,
- (ii) a polymer containing repeating units of the general formulae A and B-Ib,
- (iii) a polymer containing repeating units of the general formulae A and B-II,
- (iv) a polymer having a structure of general formula C,
- (v) a polymer having a structure of general formula D; and

wherein Ar¹ of A, C and D, Ar² of B-Ia, B-II and D, and Ar³ of B-Ia are each one independently selected from units of formulae XXX to XXXXXXIII (as shown, e.g., in claim 9) and IIIi (as shown, e.g., in claim 15); and

wherein L¹ and L² of formulae B-Ia, B-Ib, B-II, C and D are each one independently selected from ligands represented by formulae I to XXIXc (as shown, e.g. in claim 7) and wherein, in the case of XXIX, Ar is one selected from phenylene, biphenylene, naphthylene, thienylene or fluorenylene; and

wherein M of B-Ia, B-Ib, B-II, C and D is one selected from iridium(III), platinum(II), osmium(II), gallium(III) or rhodium (III); and

wherein Sp of B-II is one selected from a C2-C15 alkylene unit, a C2-C15 heteroalkylene unit having 1-3 chain hetero atoms selected from nitrogen, oxygen and sulfur, a C5-C20 arylene unit, a heteroarylene unit having 5-9 ring C atoms and 1-3 ring hetero atoms selected from nitrogen, oxygen and sulfur, a C1-C12 alkylencarboxylic acid unit, a C1-C12 alkylenedicarboxylic acid unit, a C1-C12 alkylencarboxamide unit or a C1-C12 alkylenedicarboxamide unit.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. That is, applicant is required to elect one of (i)-(v) for the overall structure of the polymer, and make further elections with respect to each of the Ar, L, M and Sp (if present) variables of the elected structure. Applicant is also required to identify an ultimate species (a specific polymer) that will be used as the starting point for search and examination purposes. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the

limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

With the exception of claim 1, which is a generic claim, each of the other claims corresponds (or appears to correspond) to more than one species, but not all species. Note that while each of the claims that is presently an improper multiple dependent claim appears to correspond to more than one species, the improper multiple dependent claims cannot be examined as is.

The following claim is generic: 1.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The features in common to the different species of polymer (generically, a metal, at least one ligand and at least one aromatic group) do not represent a contribution over the prior art, and therefore do not constitute a special technical feature, as evidenced, for example, by US 2002/0193532 A1 to Ikehira et al. Further, all the alternative do not share a significant structural element and/or all alternatives do not belong to a recognized class of chemical compounds in the art to which the invention pertains.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should

be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

/Marie R. Yamnitzky/
Primary Examiner, Art Unit 1794

MRY
January 14, 2009